

Title (en)

Fluid-type shock absorber, particularly for doors of electrical household appliances

Title (de)

Flüssigkeitsstoßdämpfer, insbesondere für Türen von elektrischen Haushaltsgeräten

Title (fr)

Amortisseur de type fluide, en particulier pour des portes d'appareils électroménagers

Publication

**EP 2775163 B1 20160427 (EN)**

Application

**EP 14157890 A 20140305**

Priority

IT MI20130344 A 20130307

Abstract (en)

[origin: EP2775163A1] A fluid-type shock absorber, particularly for doors of electrical household appliances such as ovens, dishwashers or the like or for furniture components such as cabinet doors or drawers, with great simplicity of production; the shock absorber comprises a shock absorber body (2), in which a substantially cylindrical chamber (3) is defined that accommodates coaxially a piston (4) provided with a stem (5) that protrudes from at least one axial end of the chamber (3), the piston (4) divides said chamber (3) into two parts (3a, 3b) which are arranged on mutually opposite sides with respect to the piston (4) along the axis (6) of the chamber (3) and contain a fluid, the piston (4) is accommodated so that it can slide axially within the chamber (3), moreover at least one duct (7) is provided for connecting the two parts (3a, 3b) of the chamber (3) in order to allow the transit of the fluid from one part to the other of the chamber (3) for the axial sliding of the piston (4) with respect to the shock absorber body (2), the connecting duct (7) is defined in the piston (4) and has a calibrated portion (7a) thereof that is defined on a first end face (4a) of the piston (4), means (8) are provided for varying the passage section of the connecting duct (7) available for the fluid which, depending on the direction of axial sliding of the piston (4) in the chamber (3), are engageable or disengageable with the first end face (4a) of the piston (4) in order to channel the transit of the fluid along the calibrated portion (7a) or in order to also allow the transit of the fluid outside the calibrated portion (7a).

IPC 8 full level

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CPC (source: EP US)

**E05F 5/02** (2013.01 - EP US); **F16F 9/19** (2013.01 - US); **F16F 9/20** (2013.01 - EP); **F16F 9/3405** (2013.01 - US); **F16F 9/348** (2013.01 - EP); **F16F 9/3481** (2013.01 - EP US); **F16F 9/516** (2013.01 - US); **F16F 13/007** (2013.01 - EP); **E05Y 2201/21** (2013.01 - EP US); **E05Y 2201/256** (2013.01 - EP US); **E05Y 2201/264** (2013.01 - EP US); **E05Y 2900/20** (2013.01 - EP US); **E05Y 2900/30** (2013.01 - EP US); **F16F 2230/0082** (2013.01 - EP)

Citation (opposition)

Opponent : Grass GmbH & Co. KG

- EP 2841793 A1 20150304 - DRUCK UND SPRITZGUSSWERK HETTICH GMBH & CO KG [DE]
- DE 202009004752 U1 20100909 - DRUCK UND SPRITZGUSWERK HETTIC [DE]
- WO 2007099100 A2 20070907 - HETTICH ONI GMBH & CO KG [DE], et al
- DE 3437653 A1 19860417 - RHEINMETALL GMBH [DE]

Cited by

EP3335615A1; US10660500B2

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

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